UK Subject to change

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USER'S MANUAL

Ferm Bench Grinder

FSMC-200/150

CE

Ferm®

Art.nr. 750357
Screwfix Art.nr. 14544

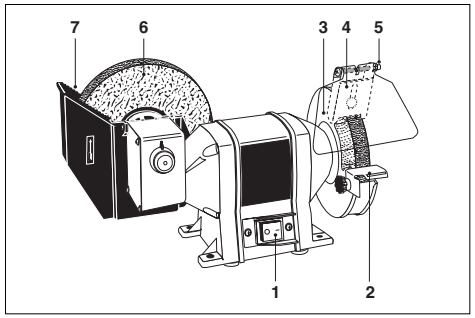
UK English

FERM BENCH GRINDER FSMC-200/150 USERS MANUAL

TECHNICAL SPECIFICATIONS

Voltage	230 V
Frequency	50 Hz
Power input	370 W
No load speed	2950/min
Grinding stone dimensions	150x20 (12.7) mm
Wet grinding stone dimensions	200x40 (20) mm
Weight	12 kg
Lpa (sound pressure)	76.0 dB(A)

PRODUCT INFORMATION



1. On/off switch
2. Tool Rest
3. Eye shield
4. Eye shield mount
5. Bolt for eye shield mount
6. Wet grinding wheel
7. Water reservoir

SAFETY INSTRUCTIONS

The following pictograms are used in these instructions for use:

Denotes risk of personal injury, loss of life or damage to the tool in case of non-observance of the instructions in this manual.

Denotes risk of electric shock.

Carefully read this manual before using the machine. Make sure that you know how the machine functions and how to operate it. Maintain the machine in accordance with the instructions to make sure it functions properly. Keep this manual and the enclosed documentation with the machine.

Ferm products are manufactured to high quality standards they are safe and fit for purpose at time of sale, but all tools can be dangerous if the correct precautions are not taken. Always follow these instructions, do not carry out the operation until you are sure you can do so in safety. Remember to consider the work environment for safe operation as well as safety for tool use.

Warning! *When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury. Read all these instructions before attempting to operate this product. Save these instructions for future reference.*

PERSONAL SAFETY

Use Personal Protection Safety Equipment

Protect eyes with safety glasses or goggles note: the use of safety protective eyewear without the CE mark can lead to serious injury if the lens breaks. A suitable dust mask should be worn if cutting, drilling or sanding is dusty, in particular chipboard or MDF.
Approved safety footwear and headgear should worn as appropriate, for example on building works or when heavy weights are involved. Wear suitable gloves and apron to protect against sparks/debris. Wear earplugs or ear defenders.

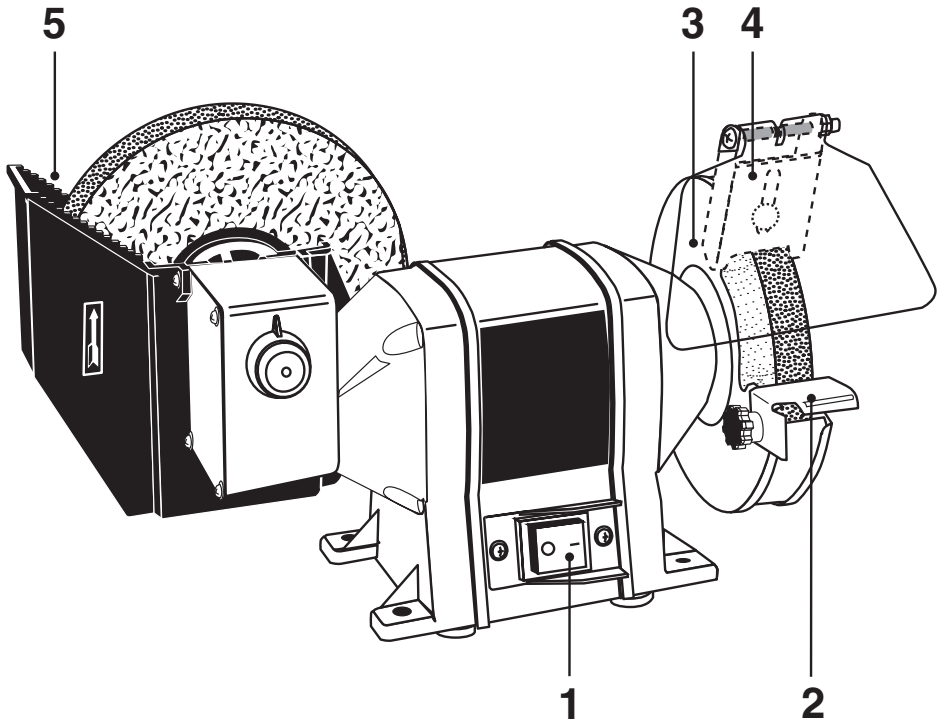
Dress properly

Do not wear loose clothing or jewellery. It can get caught in moving parts. Non-skid footwear is recommended when working out doors. Wear protective hair covering to contain long hair.

Stay alert

Watch what you are doing. Use common sense. Do not operate tools when tired or after taking alcohol or prescription/ non-prescription drugs.

EXPLODED VIEW



SPARE PARTS LIST FSMC-200/150

REF NR	DESCRIPTION	FERM NR
001	SWITCH	206451
002	SUPPORT	206454
003	COVER GLASS	206401
004	COVER GLASS HOLDER	206132
005	WATER TANK	206442
-	GEAR	205450

OPERATIONAL SAFETY

Warning! *Never use the machine for grinding magnesium workpieces. Do not use this machine for grinding soft materials like aluminium, lead or wood. Do not use near flammable materials or people.*

Concentrate
Routine and repetition can lead to mistakes. Remember that a slight lack of concentration can result in serious injuries in a split second.

Keep work area clean
Cluttered areas and benches invite injuries.

Consider the work environment
Do not expose power tools to rain or use them in damp or wet locations. Keep work area well lit. Do not use power tools in the presence of flammable liquids, vapours or gases.

Guard against electric shock
This unit contains dangerous voltages. Use a RCD (residual current device) to provide protection against electrical shock. Prevent body contact with grounded surfaces (e.g. pipes, radiator, ranges or refrigerators).

Keep children and pets away
Do not let children or pets come into contact with the tool, extension cable or work area.

Do not force the tool
It will work better and safer at the rate for which it was intended.

Use the right tool
Do not force small tools or attachments to do the job of a heavy-duty tool. Do not use tools for purposes for which they were not intended; for example do not use a circular saw for cutting trees or logs.

Do not abuse the cable
Never carry the tool by the cable or pull it to disconnect it from the power socket. Keep the cable away from heat, oil and sharp edges. Do not touch the metal plug pins when connecting or removing the plug.

Do not over-reach
Keep a proper footing and balance at all times.

Disconnect tools from power supply
When not in use, before servicing and when changing accessories such as blades, bits and cutters.

Always switch off and unplug the grinder from the power supply before making adjustments or changing grinding wheels.

Remove adjusting keys and wrenches
Ensure that they are removed from the tool before switching on.

Avoid unintentional starting
Check that the switch is off before plugging in to socket.

Extension cables
Use only three core earthed extension cables suitable for the power input of the tool (minimum cable size 1.5mm^2). Plug into an earthed socket only.
When using a cable reel unwind it fully. Do not use long extension cables.
If the tool is suitable to be used outdoors, only use an extension cable intended for outdoor use and marked accordingly.
Use a RCD (residual current device) to provide protection against electrical shock.
Do not use in rain or damp conditions.

Connect a dust extraction device
Whenever there are facilities for fitting a dust or fume extraction system, make sure it is connected and used.

Use recommended accessories
The use of any other accessory or attachment other than recommended in the instructions or catalogue may present a risk of personal injury.

INSTALLATION

Check package contents
Check contents against list in this manual to make sure each item is present.

Check for damage
Before using this item check each part listed is undamaged.

Save packaging
Save major packaging for return of product for service or repair.

The grinder must be fixed to a suitable bench

Ensure the grinder is unplugged from the mains

- Use 6mm diameter steel bolts, nuts and washers to attach the machine, the bolt length depends on the thickness of the bench.
- The grinder is fitted with an earthed plug and must fitted to an earthed socket.
- Route the mains lead away from the machine and work area.
- If the bench is made of steel, it recommended that you place a wood or hard rubber panel under the machine before fixing to prevent vibration.

ASSEMBLING THE ACCESSORIES

MOUNTING THE TRANSPARENT FACE GUARD/EYE SHIELD

Do not use this machine without the eye shield in place and properly adjusted.

Ensure the grinder is unplugged from mains.

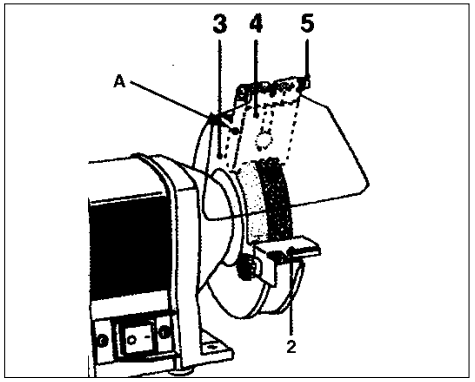
Refer to illustration below.
- Remove the Bolt (A) from the wheel guard, push the mount with the eye shield attached onto the wheel guard, replace the bolt/nut and washer through the slots in the mount and holes in the wheel guard, tighten finger tight.
- Adjust the mount (4) so there is a maximum gap of 1.5mm between it and the wheel as shown.
- Tighten the mount bolt/nut securely.
- Adjust the eye shield (3) so that it gives maximum protection during operation.
- Make sure the eye shield bolt (5) is secure but does not prevent adjustment of the eye shield.

Remember that you will always need to use safety glasses for protection as well as the eye guard when operating this machine.

MOUNTING/ADJUSTING THE TOOL REST

Ensure the grinder is unplugged from the mains.

Refer to illustration below.
- Assemble the tool rest (2) with the short bolt facing inwards and the flat washer on the threaded side of bolt.
- Make sure the square under the head of the bolt locates in the slot on the wheel guard; fit the tool rest, washer and then screw on the thumbscrew finger tight.
- Adjust the tool rest so that the maximum gap between it and the wheel is 1.5mm.
- Tighten the thumbscrew firmly by hand.



GUARANTEE
The guarantee conditions can be found on the separately enclosed guarantee card.

CE DECLARATION OF CONFORMITY (UK)

We declare under our sole responsibility that this product is in conformity with the following standards or standardized documents

IEC1029-2-4, EN61029-1, EN55014, EN55104, EN61000-3-2, EN61000-3-3

in accordance with the regulations.

89/392/EEC, 73/23/EEC, 89/336/EEC

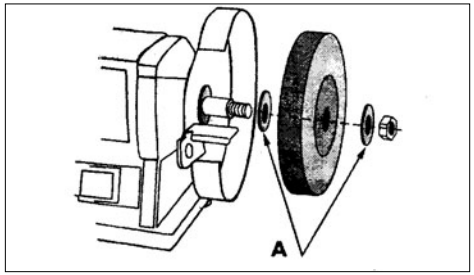
from 01-07-1999
GENEMUIDEN NL
W. Kamphof
Quality department

TO MOUNT/REPLACE THE RIGHT-HAND GRINDING WHEEL

Ensure the grinder is unplugged from mains.

Refer to illustration below.
- Check the grinding wheel is the correct type for the machine
  Only use wheels with the following information marked on them:
  Name of manufacturer.
  Binding material.
  Dimensions.
  Maximum speed.
  If this information is not clear or not marked on the wheel do not use it.
- Make sure maximum speed marked on the wheel is the same or less than that marked on the machine.
- Make sure the dimensions of the wheel are correct for the machine – 150mm maximum diameter X 20mm width X 12.7mm arbour hole.
- Do not alter wheels to fit the machine.

Mounting/replacing the wheel
- Remove the three bolts, nuts and washers from the wheel guard and pull off the end plate and circular guard.
- Loosen the wheel-retaining nut with a suitable 19mm spanner (not supplied), anticlockwise for the right hand wheel. Remove the nut, flange washers (A) and wheel from spindle.
- Clean the guard, flange washers and spindle.
- Replace one flange washer, the concave facing the grinding wheel, then slide the new wheel onto the spindle (observing the correct direction if marked on the wheel) and replace the second flange washer – concave towards the wheel - and the nut.
- Tighten nut, clockwise for right hand spindle. Do not over tighten.
- Replace the guard, eye shields and tool rest parts in the reverse order making sure that you adjust the tool rest and eye shields.
- Tighten bolts/nuts as appropriate.

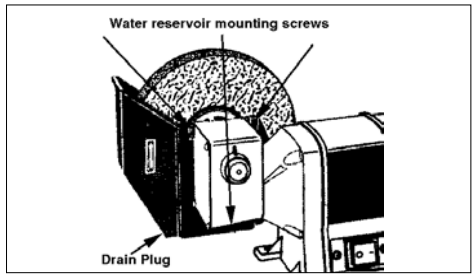


TO MOUNT/REPLACE THE LEFT-HAND WET GRINDING WHEEL

Ensure the grinder is unplugged from mains.

Refer to illustration below.
- Check the grinding wheel is the correct type for the machine
  Only use wheels with the following information marked on them:
  Name of manufacturer.
  Binding material.
  Dimensions.
  Maximum speed.
  If this information is not clear or not marked on the wheel do not use it.
- Make sure maximum speed marked on the wheel is the same or less than that marked on the machine.
- Make sure the dimensions of the wheel are correct for the machine – 200mm maximum diameter X 40mm width X 20mm arbour hole.
- Do not alter wheels to fit the machine.

Mounting/replacing the wheel
- Empty any water from the reservoir by removing the drain plug.
- Remove the three crosshead screws and washers from the water reservoir/wheel guard and pull off downwards.
- Loosen the wheel-retaining nut with a suitable 19mm spanner (not supplied), anticlockwise, viewed from the back of he machine.
- Remove the nut, flange washers and wheel from spindle.
- Clean the guard, flange washers, spindle and reservoir.
- Replace one flange washer, the 20mm boss facing the grinding wheel, then slide the new wheel onto the boss/spindle (observing the correct direction if marked on the wheel) and replace the second flange washer (boss towards the wheel) and the nut.
- Tighten nut, clockwise viewed from the back of the machine. Do not over tighten.
- Replace water reservoir by sliding upwards from underside of machine and reinstall the three-crosshead screws and their washers. Tighten with a suitable screwdriver.
- Replace the drain plug and refill the water reservoir with 300 ml of water if using the wheel.



USING THE BENCH GRINDER

BEFORE OPERATING

- Check the voltage on the bench grinder corresponds with your power supply voltage and that the plug and lead are in good condition.
- Check maximum speed marked on the grinding wheel is the same or less than the maximum speed of the machine. The machine's speed must not be greater than the speed marked on the wheel.
- You have the correct type of wheel for the machine and that it is mounted correctly. Do not use parts other than supplied with the machine to make the wheel fit properly.
- Ensure the eye shield and tool rest are adjusted properly.
- Inspect the grinding wheels for any damage. Do not use cracked, or otherwise damaged discs.
- Set the guard, eye and tool rest according the instructions.
- Run idle for 30 seconds. If there is any abnormal vibration or other fault, switch off, inspect and rectify before continuing.

OPERATION

Make sure the switch on the grinder is OFF

- Plug into a suitable mains supply make sure the cable is routed well away from moving parts and switch on at plug.

To switch the grinder ON
Push in rocker switch on the side marked '–'.

To switch OFF
Push in the rocker switch on the side marked 'O'.

DURING USE

- Place the workpiece on the tool rest and push gently on to the revolving wheel, do not use undue pressure.
- Do not use the sides of the wheel for grinding.
- Take care not let loose items; rags, small parts etc get caught in the wheels
- Regularly inspect the wheels during use for signs of damage or wear and dress or replace when required. Make sure that a competent person carries this out.
- If you are using water to cool the workpiece make sure it is in a separate stable container, kept away from the machine and electrical plugs.
- Fill the water reservoir on the left-hand wet wheel with 300ml of water only. Do not overfill.
- Drain the water from the reservoir when not in use.
- If you are using the wet wheel on a regular basis, replace the water weekly.
- When grinding edge tools take care not to overheat the edge this will draw the temper and make the tool blunt easily. To stop this happening cool the tool frequently with water.
- Make sure the workpiece cannot get stuck between the wheel and guards/tool rest.
- Switch the machine off before removing the plug from the mains socket.
- Wear appropriate personal protection equipment,
- Do not wear loose clothes, which could get caught in the wheel.
- Keep hands away from wheel.

MAINTENCE, CARE AND REPAIR

Switch off and unplug the machine before carrying out any cleaning or maintenance work

CLEANING

Clean with a soft brush or dry cloth.
Do not use water or flammable liquids to clean the grinder

FAULTS

Switch OFF immediately at the mains plug and remove the plug when:

- The plug or cable is damaged.
- The switch on the machine is defective.
- You smell or see smoke caused by scorched insulation in the machine.
- There is abnormal vibration from the wheels.

Overheating

- Put less pressure on the workpiece.

The machine does not start when switched on

- Check the mains lead and the fuse/plug.
- Take to your Ferm Dealer for repair.

The motor is defective

- Take to your Ferm Dealer.

There are no user serviceable/repairable parts inside this machine. ***Qualified service engineers must carry out repairs and servicing.***

MAINTAIN TOOLS WITH CARE

Keep the tool clean for better and safer performance.
Store the wheels properly in accordance with the maker's instructions.
Follow instructions for changing accessories. Inspect tool and extension cables periodically and if damaged, have them repaired by a qualified person or authorised service body.

Check for damaged parts
Do not use a tool with damaged parts, before further use a damaged tool must be carefully checked by a qualified person to determine that it will operate properly. Check for alignment of moving parts, binding or breakage of parts, mounting and other conditions that may affect its operation.
A damaged part or guard should be properly repaired by an authorised service centre, unless indicated otherwise in the instruction manual. Have defective switches replaced by an authorised service centre. Do not use a tool if the switch does not turn on and off.

Have your tool repaired by an expert
This appliance is manufactured in accordance with relevant safety standards. Only experts must carry out repairing of electrical appliances, otherwise considerable danger for the user may result.

Storing tools
When not in use tools should be stored in the dry, out of reach of children.

ELECTRICAL INFORMATION

This product is complete with a pre-wired mains plug; it's fitted with a 3-core mains cable and must be plugged in to an earthed mains socket only.
If the plug needs replacing follow these instructions.

Wire correctly
The wires in the mains lead are coloured in the following way:

BLUE	• Neutral
BROWN	• Live
YELLOW/GREEN	• Earth

Securing wires
Secure wires carefully and firmly to the correct terminals. Secure the mains cable in the plug cord grip firmly
Fit a 5-amp fuse. If a 13amp (BS1363) plug is used a (BS 1362) ASTA approved 5-amp fuse must be fitted.

Recycle/Dispose of old plug and cable
Prevent inadvertent connection to socket and risk of electric shock.

ENVIROMENT

Recycle the packaging according to the identification marks on it.
At the end of the product or its accessories life please recycle where facilities exist. Phone the Helpline for current advice on recycling.

Helpline
For any queries relating to operational or safety matters contact:

Ferm Customer Helpline on:	**0115 966 1199**
Monday-Friday	**8am – 6pm**
Saturday	**9am – 1 pm**